

Serial No. 10/030,217, filed April 9, 2003  
Docket No. 1115622-0006  
Page 6 of 9

## REMARKS

### **I. Claims amendments**

Claim 1 has been canceled, and claims 3-4 have been withdrawn as directed to a non-elected invention. Applicants request reconsideration of the finality of the restriction requirement in view of the remarks in Section II below.

Claim 2 has been amended to be in independent claim form and to recite the features of canceled claim 1. Claim 2 has also been amended to separate each element of the claim by a line indentation. New claims 6 and 7 are directed to exemplary embodiments of groups R<sup>1</sup> to R<sup>12</sup> which have been deleted from amended claim 2. Support for claims 6 and 7 is provided by claim 2 as originally filed, and by the application at page 4. Applicants submit that new claims 6 and 7 should be considered part of and examined with the other claims of elected Group I.

### **II. Restriction requirement**

The restriction requirement of record has been made final. Applicants respectfully disagree for the reasons of record.

However, once a determination of the patentability of the claims of elected Group I has been reached, Applicants submit that the Examiner would then be required to withdraw the restriction requirement and rejoin and consider withdrawn claims 3 and 4 in the present application. Such a determination of patentability is tantamount to a recognition of the "special technical features" which are shared by the pending claims and which distinguish the claimed invention over the prior art. (See PCT Rules 13.1 and 13.1, and 37 C.F.R. §1.475).

### **III. Claim rejections- 35 U.S.C. § 112, second paragraph.**

Claim 1 is rejected under 35 U.S.C. § 112, first paragraph, as allegedly being indefinite because the metes and bounds of what fiber size is included or excluded in the term "microfiber" cannot be determined. Claim 1 has been canceled and, therefore, the rejection is moot with respect to claim 1.

When interpreted in view of the specification, Applicants submit that the term "microfiber", as now recited in amended claim 2, is understood to be a fiber having a diameter of

Serial No. 10/030,217, filed April 9, 2003  
Docket No. 1115622-0006  
Page 7 of 9

1.0 to 20  $\mu\text{m}$ . In this regard, the Examiner's attention is directed to the specification at page 1, lines 31-33, where it is stated that the "melt-blowing process of the invention results in microdenier fibers with diameters of 1.0 to 20  $\mu\text{m}$ , preferably 0.5 to 7 $\mu\text{m}$ ". Therefore, one of ordinary skill in the art would understand that the claimed method produces microfibers for microfiber webs in which the microfibers have diameters in the range of 1.0 to 20  $\mu\text{m}$ . Accordingly, in view of the specification, the term "microfiber" is clearly defined and not indefinite.

Claim 2 is also rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for the use of exemplary language. Claim 2 has been amended to delete exemplary embodiments of the invention from the claim.

Claim 2 is further rejected as allegedly being indefinite for containing the expression "or form a saturated, unsaturated, or aromatic ring" in the definition of  $R^1$  through  $R^8$ . As the specified groups already contain cyclic and aromatic groups, the Examiner alleges that the meaning of the expression is unclear.

Applicants respectfully submit that the quoted expression is an art-recognized expression that is used and readily understood by a person of ordinary skill in the art. Groups  $R^1$  through  $R^8$  are discussed in the specification at page 3, line 7-page 4, line 17. Specifically, it is disclosed that any of  $R_1$ - $R_8$  can bond to form a saturated, unsaturated, or aromatic ring (page 4, lines 3-7). As such, it is understood that groups  $R_1$ - $R_8$  can be independent and unlinked substituents of the cycloolefin, or groups  $R_1$ - $R_8$  can optionally join to form an additional ring. This additional ring can be saturated, unsaturated, or aromatic. Therefore, the option that substituents  $R_1$ - $R_8$  bond to form a ring is entirely separate from the structure of the polycyclic olefin to which  $R_1$ - $R_8$  are attached. Accordingly, the meaning of the expression "or form a saturated, unsaturated, or aromatic ring" in the definition of  $R^1$  through  $R^8$  is definite and readily understood by the chemist of ordinary skill.

Accordingly, in view of the claim amendments and remarks above, withdrawal of the §112 rejections is requested.

Serial No. 10/030,217, filed April 9, 2003  
Docket No. 1115622-0006  
Page 8 of 9

#### **IV. Objection to claim 2**

Claim 2 is objected to for a minor informality. Claim 2 has been amended to separate each step in the claim by a line indentation in accordance with the Examiner's remarks. Withdrawal of the objection is therefore requested.

#### **V. The claimed invention**

The claimed invention is directed to a process for preparing microfiber webs by melt blowing one or more cycloolefin polymers or alloys of such cycloolefin polymers and polyolefins. The invention produces microfibers with diameters in the range of 0.1 to 20  $\mu\text{m}$ , which are approximately an order of magnitude smaller than the smallest diameter of microfibers prepared by spinbonding. The microfiber web advantageously has a very large surface area and a small pore size, and has very good resistance to chemicals and moisture.

#### **VI. Claim rejections- 35 U.S.C. § 102(b)**

Claim 1 is rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by WO 96/23010 to Arthur et al. ("Arthur"); JP 08-041260, assigned to Mitsui ("Mitsui"); US 5,880,241 to Brookhart et al. ("Brookhart"); and US 5,709,921 to Shawver ("Shawver"). The Examiner alleges that the invention of claim 1 is disclosed by Arthur, Mitsui, Brookhart, and Shawver. Claim 1 has been canceled and, therefore, the rejection is moot and should be withdrawn.

Claim 2 is rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Mitsui. The Examiner alleges that Mitsui discloses microfiber nonwovens, i.e. melt-blown webs which contain at least one polycycloolefin polymer. The Examiner further alleges that exemplary polycycloolefins are disclosed in paragraphs 0026 to 0049 of Mitsui. Applicants reply that the claimed invention is not disclosed by Mitsui.

Mitsui discloses an electret polymer blend. The electret is a mixture of (a) a cyclic olefinic resin and (b) a modifying copolymer formed from an unsaturated carboxylic acid derivative grafted onto a polymeric compound (Abstract). Therefore, it is an express requirement that one of the polymers of the electret blend contain a carboxylic acid derivative.

In contrast to Mitsui, the cycloolefin polymer used in the present invention does not contain a carboxylic acid derivative. The microfiber web prepared in accordance with the

Serial No. 10/030,217, filed April 9, 2003  
Docket No. 1115622-0006  
Page 9 of 9

claimed method is obtained by processing a cycloolefin polymer by melt blowing, and does not contain or require a carboxylic acid-containing polymer. Accordingly, the claimed invention is characterized by an absence of a polymer comprising a carboxylic acid derivative.

Consequently, the claimed invention is distinguishable over Mitsui, which expressly requires a polymer containing a grafted carboxylic acid. Withdrawal of the rejection of claim 2 is requested.

Patent documents US 5,853,881; US 5,952,252; US 6,103,647; and US 2002/0052585 have been made of record but not relied upon in support of a prior art rejection. Applicants submit that none of the above-referenced patents either disclose or suggest the claimed invention.

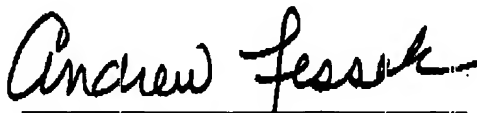
#### CONCLUSION

Upon entry of this Amendment, claims 2-4 and 6-7 are pending. Applicants submit that the application is in condition for allowance, which action is earnestly solicited.

The Assistant Commissioner is authorized to charge any fee which may be due in connection with this communication to Deposit Account 23-1703.

Dated: April 28, 2004

Respectfully submitted,



Andrew Fessak  
Reg. No. 48,528  
Agent for Applicants

Customer Number: 007470  
White & Case LLP  
Direct Dial: (212) 819-8437